

TOP 10

BENEFITS OF ENERGY-FROM-WASTE

1. The Energy/Resource Recovery Facility (E/RRF) takes care of today's waste problems today.
2. Sale of electricity offsets increasing disposal and transportation costs.
3. The Energy-from-Waste process reduces the overall volume of trash generated by 90 percent.
4. Having a local disposal option eliminates the need to transport waste elsewhere.
5. Every ton of waste processed using Energy-from-Waste avoids one ton of greenhouse gas emissions.
6. Since 1990, the E/RRF has offset the energy equivalent of using 28 million barrels of oil to produce electricity.
7. Generates enough renewable energy to power 75,000 homes.
8. The rates charged for disposal at the E/RRF are among the lowest in the region.
9. We have capacity to assist neighboring jurisdictions in waste management.
10. Combustion at high temperatures (1800°F) destroys unwanted pathogens in the waste.

Fairfax County Solid Waste Management Program

Mission Statement

Our mission is to protect the public interest through solid waste management planning and regulatory oversight of the county's refuse ordinances. We provide efficient and effective collection, recycling and disposal of solid waste for our customers in an environmentally responsible manner.



Solid Waste Management Program
Division of Solid Waste Disposal
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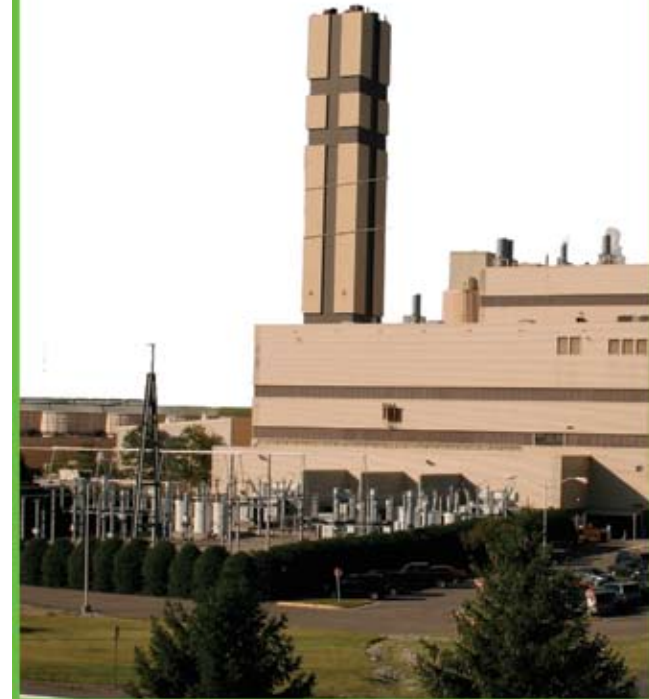
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FAIRFAX COUNTY SOLID WASTE MANAGEMENT PROGRAM
PROMOTING CLEAN COMMUNITIES & ENVIRONMENTAL STEWARDSHIP

Responsible
Waste Management &
Renewable
Energy Production

ENERGY-FROM-WASTE



About the FACILITY

The Energy/Resource Recovery Facility (E/RRF) was constructed on the site of the I-95 Landfill Complex in Lorton, Virginia. The facility is owned and operated by Covanta Fairfax, Inc., with oversight by the Fairfax County Solid Waste Management Program.

Since 1990, the E/RRF has been a cornerstone of waste management in Fairfax County. Processing more than 3,000 tons of waste each day and producing enough electricity to power 75,000 homes (80 Megawatts), the E/RRF serves the Fairfax County community through responsible waste management and renewable energy production.

How does it WORK?

Step 1 - Delivery: The trash generated in Fairfax County households, businesses, schools and institutions is brought to the E/RRF. Vehicles entering the E/RRF dump their contents on the tipping floor for inspection. Acceptable wastes are then pushed into the waste "pit" for transfer into the boilers.

Step 2 - "The Claw": Using large cranes with claw-like grappling attachments, waste is deposited onto one of four reciprocating grates that move the waste into boilers.

Step 3 - Energy Production: Inside the boilers, the waste is burned to produce heat that boils water. The steam that is generated is passed through turbines to generate electricity. The electricity generated is then sold to a local power company for distribution to the community.

Step 4 - Clean-up: The exhaust gas from combustion is scrubbed to remove trace heavy metals and other chemical constituents, and passed through large fabric filters to remove particulate matter. The cleaned exhaust is then emitted through the facility's exhaust stack.

The ash produced by combustion is processed to remove ferrous and nonferrous metals. Lime is also added to the ash before it is landfilled, to ensure that it remains benign.



Since 2000, the facility has reported:

- 93.8% removal of sulfur dioxide,
- 95.5% removal of hydrochloric acid,
- 98.6% removal of mercury, and
- 45% reduction in nitrogen oxides.

Protecting the ENVIRONMENT

The E/RRF is regulated by strict air, waste and water discharge permits. In order to meet Federal and State standards, the facility uses a state-of-the-art system of environmental controls, ensuring that trash is processed in the cleanest, safest way possible.

The environmental control system includes vehicle load inspections, active combustion controls, extensive air pollution control equipment, continuous emissions monitoring, active ash conditioning, and a regime of monthly and quarterly inspections by the State and the County.

As a testimony to its "clean and green" operation, Covanta Fairfax Inc. is a certified member of the Environmental Protection Agency's National Environmental Performance Track Program and the Virginia Department of Environmental Quality's Exemplary Environmental Excellence (E4) Program.

